

LESSON 5.3/6.1 REVIEW(QUIZ TOMORROW)

Goal: To find, graph, identify key features of linear functions mathematically and in real world context.

STATION 1

Write both explicit rules and the recursive rule for the given the sequence.

1) 4, 6, 8, 10, ...

2) 45, 42, 39, 36, ...

3) -5, -11, -17, -23, ...

4) -34, -29, -24, -19, ...

5) 35, 43, 51, 59, ...

STATION 2

Find the 5th term in the sequence given the rule.

1) $f(n) = -3n + 54$

2) $f(1) = 13; f(n) = 6 + f(n - 1)$

3) $f(n) = -2(n - 1) + 9$

4) $f(n) = 10n - 32$

5) $f(n) = -10; f(n) = -4 + f(n - 1)$

STATION 3

Graph the equation. Use a table to help you graph.

1) $y = 2x - 4$

2) $x = 3$

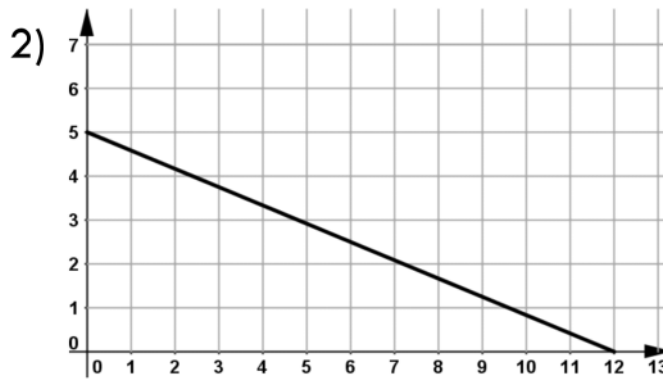
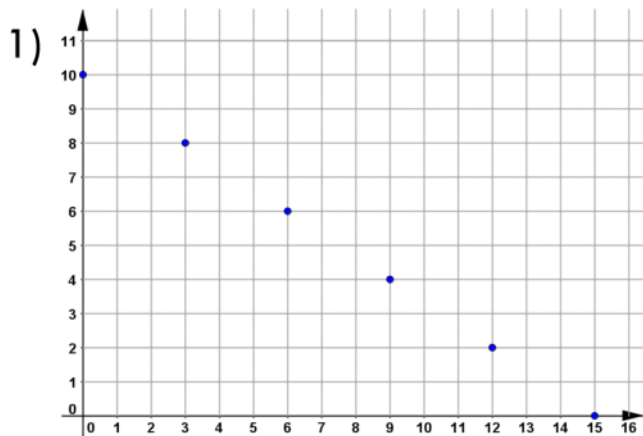
3) $y = -3x + 8$

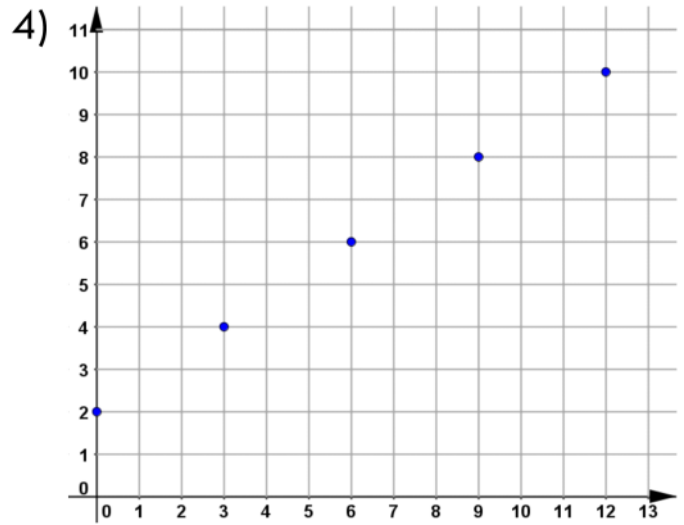
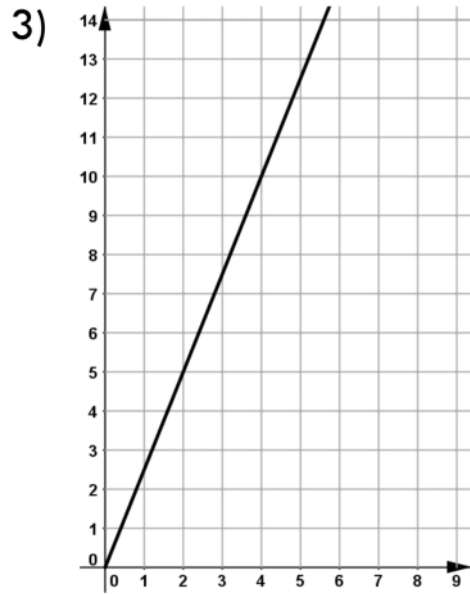
4) $y = -4$

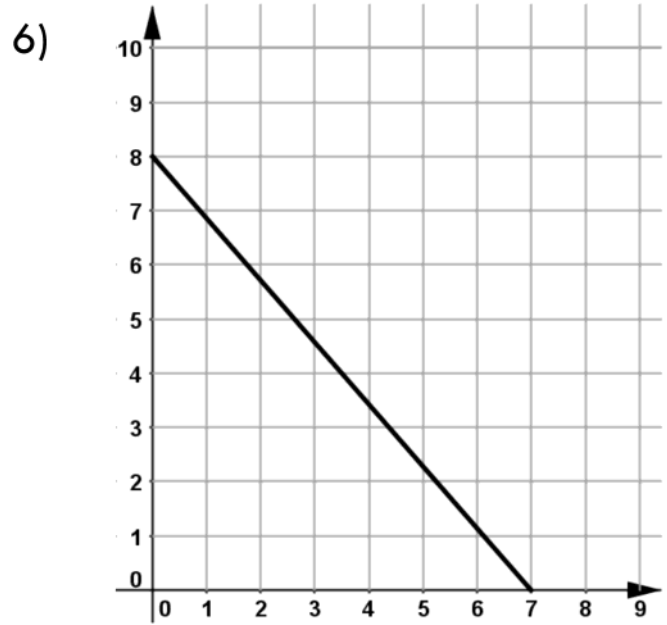
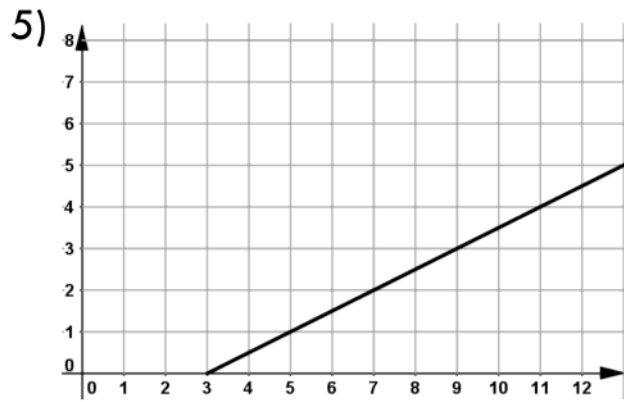
5) $y = 3x + 1$

STATION 4

Given the graphs, state the domains.







PROBLEM 1: AS A CLASS

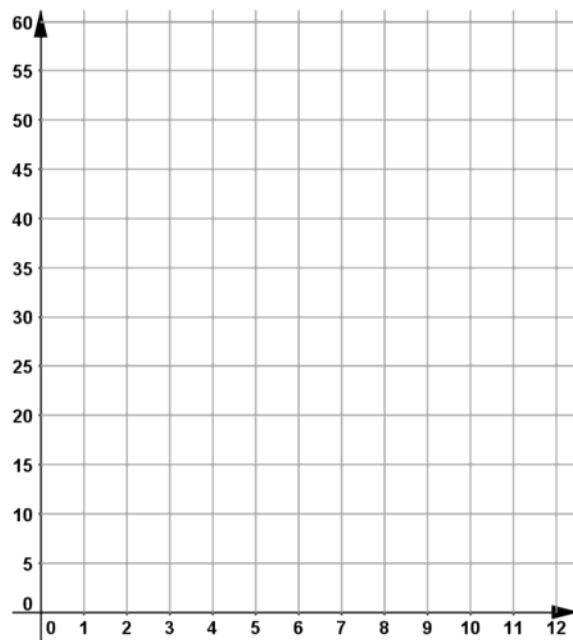
Jimbo goes to a go-cart track. He spend \$3 per lap and \$6 to enter the go-cart track. He only has \$24 to spend at the go-cart track.

Determine the domain of the situation above.

PROBLEM 1A: AS A CLASS:

Mary gives James 20 action figures as a surprise gift. He does not like action figures, so he decides to sell them on Ebay. He sells 2 action figures on Ebay each week.. A function relating the values of the number of action figures , $v(n)$, and the number of weeks n is given as $v(n) = 20 - 2n$.

Graph this and state the domain.



ANSWERS FOR THE STATIONS IN THE NEXT SLIDES

STATION 1

Write both explicit rules and the recursive rule for the given the sequence.

1) 4, 6, 8, 10, ... $f(n) = 2n + 2$ $f(1) = 4$; $f(n) = 2 + f(n-1)$
 $f(n) = 2(n-1) + 4$

2) 45, 42, 39, 36, ... $f(n) = -3n + 48$ $f(1) = 45$; $f(n) = -3 + f(n-1)$
 $f(n) = -3(n-1) + 45$

3) -5, -11, -17, -23, ... $f(n) = -6n + 1$ $f(1) = -5$
 $f(n) = -6(n-1) - 5$ $f(n) = -6 + f(n-1)$

4) -34, -29, -24, -19, ... $f(n) = 5n - 39$ $f(1) = -34$
 $f(n) = 5(n-1) - 34$ $f(n) = 5 + f(n-1)$

m $f(n) = 8n + 27$ $f(1) = 34$
 $f(n) = 8(n-1) - 34$ $f(n) = 8 + f(n-1)$

STATION 2

Find the 5th term in the sequence given the rule.

1) $f(n) = -3n + 54$ $f(5) = 39$

2) $f(1) = 13$; $f(n) = 6 + f(n - 1)$ $f(5) = 37$

3) $f(n) = -2(n - 1) + 9$ $f(5) = 1$

4) $f(n) = 10n - 32$ $f(5) = 18$

5) $f(n) = -10$; $f(n) = -4 + f(n - 1)$ $f(5) = -26$

STATION 3

Graph the equation. Use a table to help you graph.

1) $y = 2x - 4$

2) $x = 3$

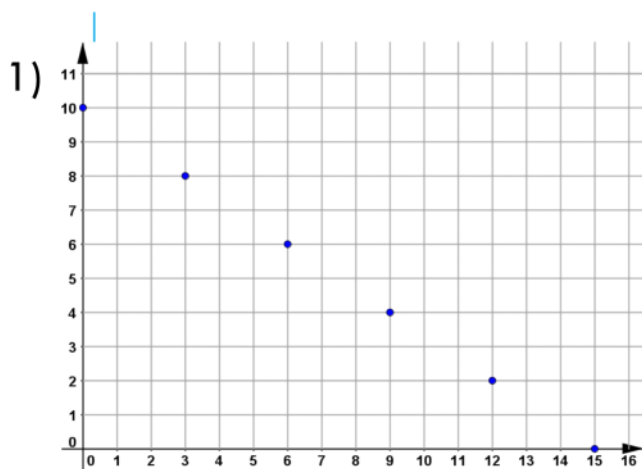
3) $y = -3x + 8$

4) $y = -4$

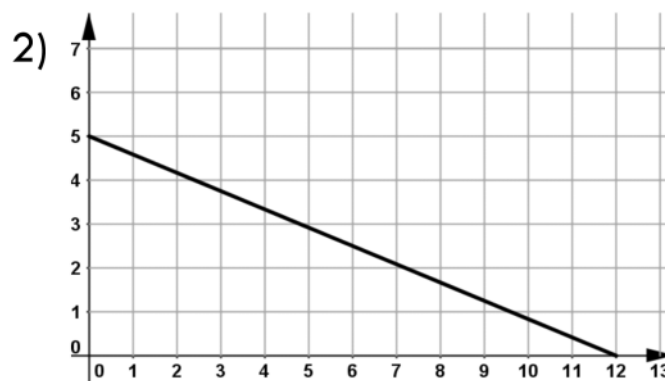
5) $y = 3x + 1$

STATION 4

Given the graphs, state the domains.

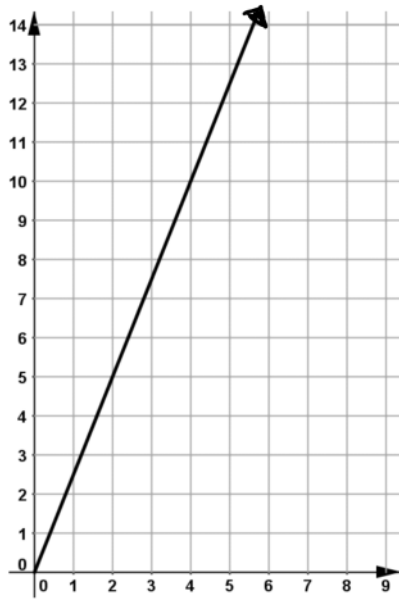


Domain: $\{0, 3, 6, 9, 12\}$



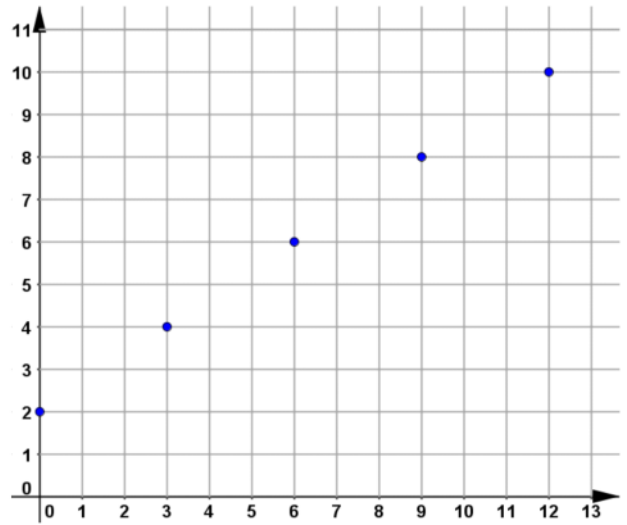
Domain: $0 \leq x \leq 12$

3)



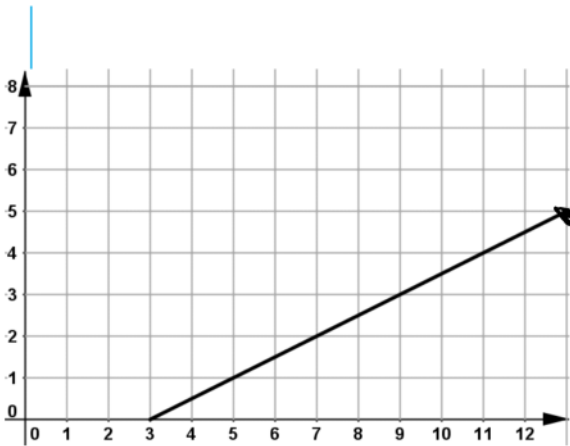
Domain: $x \geq 0$
 $0 \leq x \leq \infty$

4)



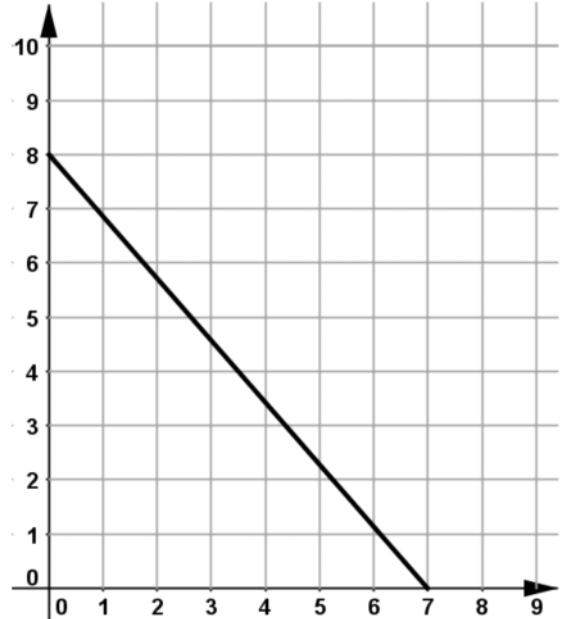
Domain: $\{0, 3, 6, 9, 12\}$

5)



Domain: $x \geq 3$
 $3 \leq x \leq \infty$

6)



Domain: $0 \leq x \leq 7$